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SOURCE Documentary as indicated. (Information specifically requested.)

RECENTLY PUBLISHED RESEARCH OF THE ACADEMY OF SCIENCES OF THE UZBEK SSR

"Preparation of Alums From Aktash Alunites by a Nonacid Method," Yu. K. Delimarrkiy, V. S. Byzgo, Uzbekistan Chem Inst

"Zhur Priklad Khim" Vol 18, 1945, pp 342-52

Formations of Al-K alums from Aktash alunites was studied, including calcining, leaching, and crystallization of the alums. Evolution of water of constitution begins at 430°, while SO_3 evolution occurs at 630°. The optimum calcining conditions were at a temperature of 650°, 16-hour duration, and reduction of the mineral to 200-250 mm pieces. Leaching in the cold requires 16 hours; 3 hours at 70°. The solutions used for crystallization have a specific gravity of about 1.2. One ton of the raw material yields 325 kg. of the alums.

"Galvanic Cells of the Daniell Type with Molten Bromides," Yu. K. Delimarskiy, Chem Inst, Acad Sci, Uzbek SSR

"Zhur Obshch Khim" Vol 19, 1945, pp 465-8

The emf of the cells: metal/0.01 M metal bromide in $AlBr_3$, NaBr/glass diaphragm/0.01 N AgBr in

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$AlBr_3$, NaBr/Ag at 260° is for Al, −0.745; Mn, −0.598; Zn, −0.564 Cd, −0.320; Pb, −0.296; Sn, −0.228; Cu, +0.028; Fe, +0.180; Hg, +0.190; Co, +0.198; Sb, +0.210; Bi, +0.284 v. The potential of Ni was not reproducible, and the potentials of Fe, Hg, and Co were less stable than those of the other metals. The temperature coefficient of the emf between 220° and 320° was negative for all metals; its absolute value in 10^{-4} v/degree was for Al 5; Mn 3; Zn 3; Cd 4; Pb 5; Sn 1; Cu 2; Sb 7; and Bi 1. Substitution of NaBr by KBr altered the emf of the Pb cell by only 0.004 v.

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